LOMBARDINI S.R.L.

EXECUTIVE ORDER U-R-027-0038 New Off-Road Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2004	4LBDL1.259LD	1.248	Diesel	3000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
	Direct Diesel Injec	etion	Loader, Pump, Compressor and Industrial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD		EXHAUST (g/kw-hr)				OPACITY (%)			
	CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
8 <u><</u> KW<19	Tier 1	STD	N/A	N/A	9.5	6.6	0.80	20	15	50
		CERT			8.0	5.1	0.41	5	7	8

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this /3TH day of January 2004.

Allen Lyons, Chief

Mobile Source Operations Division

Lombardini S.R.L. Aanufacturer:

Engine category: Nonroad Cl PA Engine Family: 4LBDL1.259LD

u-k-027-0038

Mfr Family Name: 9LD

New Submission Process Code:

ontrol : J1930	EM DDT *					>
9.Emission Control Device Per SAE J1930	EW	EM	EM	EM	E	EW
8.Fuel Rate: (lbs/hr)@peak torque	7.10	FIXED SPEED	FIXED SPEED	7.10	FIXED SPEED	FIXED SPEED
7.Fuel Rate: mm/stroke@peak torque	32.0	FIXED SPEED	FIXED SPEED	32.0	FIXED SPEED	FIXED SPEED
6.Torque @ RPM (SEA Gross)	49.4@2000	FIXED SPEED	FIXED SPEED	49.4@2000	FIXED SPEED	FIXED SPEED
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	10.78	10.78	6.46	10.78	10.78	6.46
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	32.4	32.4	32.4	32.4	32.4	32.4
3.BHP@RPM (SAE Gross)	25.2@3000	25.2@3000	16.8@1800	25.2@3000	25.2@3000	16.8@1800
2.Engine Model	9LD625	9LD625	9LD625	RD 290	RD 290	RD 290
1.Engine Code	,					